

VELVET PANICUM

Dichanthelium scoparium

(Lam.) Gould

Plant Symbol = DISC3

Contributed by: USDA NRCS East Texas Plant
Materials Center



Melinda Brakie – USDA/Natural Resources Conservation Service

Alternate Names

Velvet rosettegrass and broom panic-grass

Uses

Wildlife Value:

Because of their wide distribution, *Dichanthelium* spp. provide an important source of food for songbirds, small mammals and game birds (Miller, 1999).

Erosion Control:

This species has a high tolerance of low pH conditions and is suitable for erosion control along roadsides and timber harvest areas.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator value).

Description

General: Grass Family (*Poaceae*). To date, there are 26 identified species of *Dichanthelium* spp. in the southeastern United States (Miller, 1999). This species is distinguished from other North American grasses by its unique growth pattern. A basal rosette

is produced during fall and winter with stems developing in the spring (Gould, 1978).

Velvet panicum is a native perennial bunchgrass. However, the plant's lifespan is considered to be short when compared to other perennial plants. It has erect coarse stems up to 4.5 feet tall. The gray-green stems and leaves are covered with fine hairs. The leaves are .25 to 1.0 inch wide which are smaller than broadleaf rosettegrass (*D. latifolium*) and Bosc's panicgrass (*D. boscii*) (USDA-NRCS, 2007 and Grelen, 1984). The plant produces seed in the summer (May to June) and also in the fall. The fall seeds are found within the spikelet sheath. Velvet panicum is considered a C₃ (cool season) photosynthetic pathway plant (Gould, 1978).

Velvet panicum is a diploid (2n = 18). The plant tends to flower later than the other *Dichanthelium* species if they are present in a stand (Gould, 1978). There are approximately 380,000 seeds per pound; however, velvet panicum is considered a low volume seed producer (USDA-NRCS, 2007).

Distribution: For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Adaptation:

Velvet panicum grows in areas with precipitation ranging from 30 to 55 inches. It prefers coarse and medium textured soils with pH range of 4.5 to 7.5. Velvet panicum is not tolerant of salinity (USDA-NRCS, 2007). This plant is found in sandy woods, bogs, marshes, and disturbed sites. It is often found scattered throughout new forest plantations (Miller, 1999). Velvet panicum is seldom found on burned or grazed forest range (Grelen, 1984).

Adaptation

Velvet panicum is adapted to the eastern United States from New York to Florida west to Kansas and Texas. This adaptation area corresponds to USDA Hardiness Zones 5b to 10b.

Establishment

Fertilize planting area according to soil test for establishment. Maintain fertility levels at medium conditions and soil pH near 6.0. To reduce weed competition, do not over apply nitrogen fertilizer.

Cold stratification is not required in preparation for planting (USDA-NRCS, 2007). Plant the seed at a rate of 3.0 pure live seed pounds per acre in the fall when the ground is moist. Drill or hand plant seeds at a depth of ½" or less. If broadcasting, use a cultipacker to increase seed to soil contact.

Management

If managing as a planting: Do not over apply nitrogen fertilizer or keep soil fertility at a high level. Seed production maybe decreased by high fertility levels.

Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA NRCS does not guarantee or warranty the products and control methods named, and other products may be equally effective.

Pests and Potential Problems

Seed production:

Velvet panicum will hybridize with tapered rosettegrass (*D. acuminatum*) and cypress panicgrass (*D. dichotomum*) (Diggs, 2006).

Environmental Concerns

This plant is considered an endangered species in Indiana. Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Seeds and Plant Production

When managing for seed production, mow in the spring to clip off previous years growth.

At the East Texas Plant Materials Center, velvet panicum produces two seed crops per year: an open seed panicle in the summer (May to June) and a closed seed panicle in the fall. Summer seed harvest is completed using a flail vac or combine. The flail vac harvests the mature seed without harming the plants; therefore multiple harvests can be completed on the same seed production field. The fall produced seeds are found in the spikelet sheath and can be harvested with a conventional combine.

Summer harvesting of Pilgrim germplasm velvet panicum yielded 60 pounds of cleaned seed per acre.

Seed is cleaned using a two screen air seed cleaner with a 6/64 top screen and a 1/23 bottom screen with very little air flow.

Cultivars, Improved, and Selected Materials (and area of origin)

'Tioga' deertongue (*D. clandestinum*) is a cultivar release of the USDA-NRCS Plant Materials Center at Big Flats, New York, Pennsylvania State University, and Cornell University. It is adapted to the Northeast and upper Midwestern United States.

Pilgrim Germplasm velvet panicum (*D. scoparium*), released in 2007 by the East Texas Plant Materials Center, is a selected class for wildlife and critical area seedings. The intended area of use for this release is the southeastern United States.

Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under "United States Government." The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

References

- Diggs, G., B. Lipscomb, M. Reed, and R. O'Kennon. 2006. Illustrated Flora of East Texas, vol.1. Botanical Research Institute of Texas (BRIT), Fort Worth, Texas.
- Grelen, H.E. and R.H. Hughes. 1984. Common Herbaceous Plants of Southern Forest Range SO-210, New Orleans, Louisiana.
- Gould, F. and C. Clark. 1978. Dichanthelium (Poaceae) in the United States and Canada. Annals of the Missouri Botanical Garden. 65: 1088-1132.
- Miller, J.H. and K.V Miller. 1999. Forest plants of the southeast and their wildlife uses. Southern Weed Science Society.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>, 16 April 2007). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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